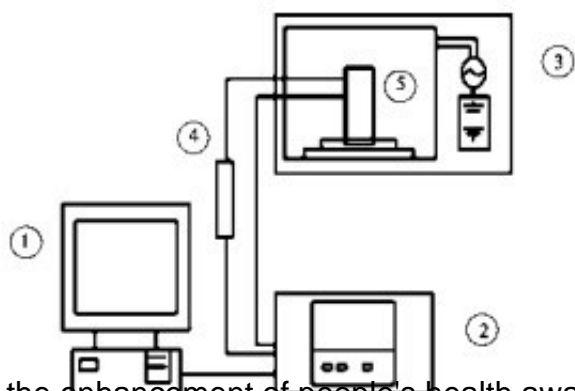


Application of Microwave Drying Technology in Storage and Maintenance of Traditional Chinese Medicine

ABSTRACT: In the process of growth, harvesting, processing, especially storage, Chinese herbal medicines are prone to mildew due to their own factors and external environmental conditions, and produce mycotoxins with accumulated toxicity in vivo, which will not only affect the quality of Chinese herbal medicines, cause huge economic losses, but also affect the safety and effectiveness of Chinese herbal medicines, and pose a serious potential threat to human health.



With the enhancement of people's health awareness of traditional Chinese medicine, how to prevent and control the mildew of traditional Chinese medicine to ensure the quality and safety of medicinal materials has become the focus of attention. The principle of [microwave drying equipment](#) was introduced. The application status of microwave drying technology in traditional Chinese medicine was introduced. The application prospect of microwave drying technology in the storage and maintenance of traditional Chinese medicine and its preparations was prospected.

Key words: [microwave drying of Chinese medicinal materials](#); storage; maintenance

More and more people pay attention to the quality and safety of traditional Chinese medicine. Traditional Chinese medicine, especially the varieties of traditional Chinese medicine for both medicine and food, has been closely related to people's lives. Whether it is medical care or daily diet, traditional Chinese medicine can not be separated. "Purchasing, marketing, transportation and storage" is the four major links in the circulation process of traditional Chinese medicine, among which storage and maintenance are the important links to ensure the stability of the quality of traditional Chinese medicine.

In order to realize the quality safety management and risk control in the whole process of traditional Chinese medicine, the construction of the traceability system of traditional Chinese medicine in China is constantly advancing. At home and abroad, drug quality problems caused by improper storage and maintenance of traditional Chinese medicine occur repeatedly, which not only affects the safety and effectiveness of clinical medication, but also causes a lot of waste of resources and huge economic losses. According to incomplete statistics, mildew occurred in more than 600 kinds of traditional Chinese medicines commonly used in Clinical

Prescriptions of traditional Chinese medicine.

More than 40% of the varieties with deteriorating phenomena such as moth borers. However, for a long time, the research on the storage and maintenance of traditional Chinese medicine has been a weak link in the production, circulation, application and research of traditional Chinese medicine, and there has been a lack of systematic basic research. Although the state has clear relevant provisions, but driven by economic interests, the phenomenon of mouldy medicinal materials used after treatment is still widespread. Chinese medicine urgently needs scientific, targeted and practical storage and maintenance technology and standards of Chinese medicine. Therefore, it is urgent to strengthen the quality control and related common technology research in the storage process of traditional Chinese medicine.

With the progress of the times, it is urgent to find some modern storage and maintenance methods of traditional Chinese medicine, and make a comparative study on the maintenance effect, maintenance cost and safety, in order to clarify the advantages of modern storage and maintenance methods, and to promote their use. Microwave drying technology has the advantages of fast drying speed, uniform heating and high efficiency. At present, most of the research focuses on the field of food and the technology of traditional Chinese medicine. There are few studies on the effect of microwave drying technology on the storage and maintenance of traditional Chinese medicine, and there is no research on the effect of microwave drying technology on storage period and post-storage.